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(54) Method for tuning a voltage controlled oscillator

(57) A very fast lock integer N PLL with hybrid digital coarse VCO tuning and VCO temperature drift compensation provides for a fully digital tuning scheme without the need for charge pumps. A PLL synthesizer (300) using such a PLL design provides for very fast lock times by using an open loop step and a closed loop step. The

hybrid PLL can achieve coarse tuning within four clock cycles, while minimizing any errors caused by the VCO nonlinearity. Temperature tracking and compensation is also provided. A SAR implementation (100) and an interpolation tuning implementation (200) are also described.

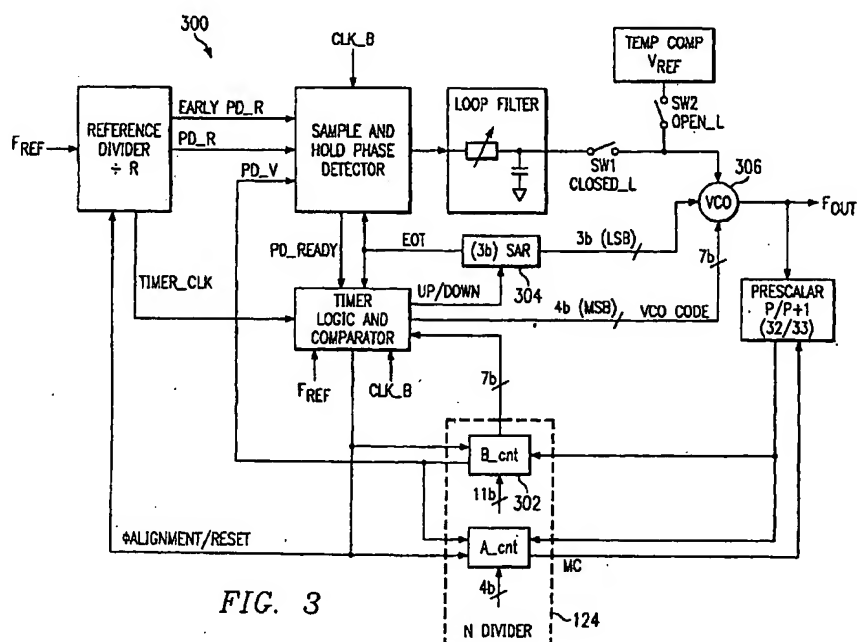


FIG. 3